Brick Township Public Schools optimize bandwidth with Dell SonicWALL

Using Dell SonicWALL application control, district boosts performance and security while reducing support

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Ross Ellicott
Manager of Network Operations

Customer profile

Company	Brick Township Public Schools
Industry	Education K-12
Country	United States
Users	10,000 students; 2,000 staff members
Website	www.brickschools.org

Challenge

- Increased bandwidth consumption
- Application-based threats
- VoIP migration

Solution

- Dell SonicWALL E-Class NSA E6500

Benefits

- Reassembly-Free Deep Packet Inspection®
- Application intelligence and control
- Gateway anti-virus, anti-spyware intrusion prevention, application intelligence and control, content filtering
- 24x7 support
- Application Flow Monitor
- High-Availability failover between appliances and Internet connections
- Role-based policy rules

Brick Township Public Schools serves students in pre-kindergarten through twelfth grade from Brick Township, New Jersey. The district supports 10,000 students and employs a staff of 2,000 across 12 schools. The district's network connects 3,500 devices, including 1,500 IP phones, across 16 building locations. Brick Township applies both public and private wireless networking.

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The challenge: bandwidth consumption and application-based threats

Brick Township has seen extensive growth in the adoption of Flash®-based education sites such as Study Island, Everyday Mathematics®, online testing and YouTube for teaching. Simultaneously, students are increasingly taking up bandwidth by connecting to streaming music and video websites like Grooveshark, Hulu and YouTube.

"Bandwidth consumption is off the charts at Brick," said Ross Ellicott, manager of network operations at Brick Township Public Schools.

At the same time, the district has found first-generation firewalls to no longer be sufficient to deal with the emergence of application-based threats.

"Stateful firewalls to me are dead," asserted Ellicott. "The attacks that are happening today are from within and going out. It's all botnets now. People try to lure you into clicking on an email, or you pass by a website infected by a virus and you get rogue antivirus and rogue pop-ups."

Another challenge the district faces is migrating its existing phone system to Voice over IP (VoIP).

"We're going to have VoIP traffic traversing our network," reported Ellicott. "And we are moving from a PBX phone system to a Cisco® VoIP call manager."

Previously, the district had deployed a solution from Astaro® (now a Sophos company), but found it was less intuitive and had a difficult-to-manage interface. After evaluating alternative offerings, the district chose a Dell™ SonicWALL™ Next-Generation Firewall solution.

"Frankly, Dell SonicWALL blows away the other firewall offerings I've seen from Astaro or WatchGuard®," said Ellicott.

The solution: Dell SonicWALL E-Class NSA E6500

The district has deployed paired Dell SonicWALL E-Class Network Security Appliance (NSA) E6500 Next-Generation Firewalls in High Availability (HA) mode, running SonicOS 5.8, and bundled with Dell SonicWALL TotalSecure. The solution combines gateway anti-virus, anti-spyware intrusion prevention, application intelligence and control, content filtering, firmware updates and 24x7 support.

The NSA E6500 scales to the district's expanding needs. Combining Dell SonicWALL Reassembly-Free Deep Packet Inspection® (RFDPI) with a multi-core platform, it is configurable to analyze and control thousands of unique applications, whether unencrypted or encrypted with SSL. As an inline solution, the NSA E6500 leverages existing infrastructure while adding an extra layer of network security and visibility. As a security gateway, it adds secure remote access, high availability and other features.

The results: bandwidth optimization, enhanced security and reduction in support calls

The NSA E6500 has enabled the district to reduce threats and optimize bandwidth, freeing IT staff to work on other strategic projects. "I am saving up to 15 hours a week with the reduction in support calls," affirmed Ellicott. "That is human capital that my staff and I can put back into other projects."

The visualization capabilities have given Brick Township granular control, rule creation and the ability to prioritize the applications that are most critical for the school district.

"In my experience, Dell SonicWALL is committed to pushing out firmware that offers the latest features," acknowledged Ellicott. "I consider Dell SonicWALL to be one of the leading-edge providers of services like application intelligence and control."

Dell SonicWALL Application Intelligence and Control provides granular control and real-time visualization of applications to guarantee bandwidth prioritization and ensure maximum network security and productivity. The Dell SonicWALL Application Flow Monitor provides real-time graphs of applications, ingress and egress bandwidth, active website connections and user activity.

Ellicott continued: "This is what I love about Dell SonicWALL: within four clicks on the Application Flow Monitor, I can create a rule to block or throttle the bandwidth on unwanted applications. It's awesome!"

Going forward, the district plans to customize policy rules based upon Active Directory role and group.

"For example, we have a substance abuse advisor in one of the high schools," said Ellicott. "With the NSA E6500, we can create custom policy for her role that would give her access to websites containing content that would not be accessible to other roles."

The solution also saves the district in power and cooling costs.

"The NSA E6500 appliance is paying for itself in power savings," stated Ellicott. "We've started looking at consolidated servers and how we can reduce our footprint and avoid pumping up heat and power supplies. They are expensive to run over the course of a year."

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